

**In the claims:**

Please amend Claims 2, 3 and 11 as in the clean version which follows:

A1  
1 2. The wavelength reference of claim 1, wherein:  
2 said etalon includes an enclosure surrounding said cavity which is filled with gas, and  
3 tuning of said etalon is done by variation in the pressure of the gas said the cavity.

1 3. The wavelength reference of claim 1, wherein:  
2 said etalon includes an enclosure surrounding said cavity which is filled with gas, and  
3 tuning of said etalon is done by variation in the composition of the gas in said cavity.

A2  
1 11. A process for making a wavelength reference, comprising the steps of:  
2 A) forming at least one etalon which includes a pair of reflecting surfaces and  
3 enclosure walls surrounding a cavity filled with gas of variable pressure or composition, and  
4 which produces a medium of variable optical index of refraction;  
5 B) introducing radiation into said etalon, whereby a plurality of equally spaced  
6 spectral lines is produced;  
7 C) tuning said etalon by varying said variable optical index of refraction, to align  
8 said plurality of spectral lines with an external wavelength standard; and  
9 D) fixing said variable optical index of refraction included in said etalon, so that said  
10 spectral line produced remains substantially aligned with said external wavelength standard.

A marked-up version of the changes made is attached hereto. The attached page is captioned "Version with markings to show changes made."

**In the abstract:**

Please replace the abstract with the following rewritten abstract:

N/E  
A wavelength reference (10) including at least one gas-tunable etalons (12). Each etalon (12) has first and second reflective surfaces (20,22), making a reflecting surface pair (23). Each reflecting surface pair (23) surrounds a cavity (16) which is filled with a gas-tunable medium (19) having a variable optical index of refraction. The etalons (12) produce equally-spaced spectral lines (4) which are variable in response to changes in the gas-tunable medium (19) such as varying gas pressure or composition. The spectral lines (4) are tuned to align to an external wavelength standard, preferably an ITU reference grid (2). The properties of the gas-tunable medium (19) are then fixed, preferably by sealing an enclosure (14) which surrounds the etalons (12), so that they act as a wavelength reference (10). The etalon (12) can be a reflective etalon (29) or in an alternate embodiment (60), can be a transmissive etalon (29).